

IN THE CLAIMS

1. (Currently Amended) A damper assembly installed in a housing having a pair of side walls connected to a pair of end ~~wells~~ walls that define a conduit extending therethrough, ~~wherein the damper assembly is including at least one damper blade~~ movable from an open position to a closed position to control fluid flow through the conduit, the damper assembly comprising:

(a) the at least one damper blade operating in a normally open position;

(b) ~~a spring member operably connected between the blade and the housing, wherein the spring member applies a force to~~ biasing member urging the damper blade ~~biasing the blade~~ towards the closed position;

(c) a retaining member in removable mechanical communication with the damper blade to maintain the damper blade in the open position against the biasing force until an occurrence of a predetermined condition that causes the damper blade to close; and

(d) a latch mechanism including a plate connected to the damper blade and further connected to a locking member that pivots relative to the plate that engages when the damper blade closes to lock the damper blade with respect to prevent counter-movement of the damper blade movement towards the open position once the damper blade has closed.

2. (Original) The damper assembly as recited in claim 1, wherein the retaining member is a fusible link.

3. (Currently Amended) The damper assembly as recited in claim 2, wherein the fusible link fails upon an occurrence of ~~[[a]]~~ the predetermined condition to allow ~~and wherein the biasing force to close closes the damper blade when the fusible link fails.~~

4. (Original) The damper assembly as recited in claim 1, wherein the retaining member is heat sensitive.

5. (Currently Amended) The damper assembly as recited in claim 1, wherein the locking mechanism carries a latch member that engages a catch member to lock the damper blade ~~latch mechanism includes a linkage rotatably coupled to the damper blade, wherein linkage rotation engages the latch mechanism when the blade is biased towards the closed position.~~

6. (Currently Amended) The damper assembly as recited in claim 5, wherein the ~~linkage includes a latch member that engages a catch member that is supported by the~~ is formed in a housing wall.

7. (Currently Amended) The damper assembly as recited in claim 6, wherein the ~~latch locking member further comprises a hook protrusion extending from the linkage that engages the catch member~~.

8. (Currently Amended) The damper assembly as recited in claim ~~5~~ 1, wherein ~~the linkage includes a latch member that is movably supported by the linkage, and wherein further comprising a spring member biases~~ biasing the latch locking member into interference with a catch member that is supported by the housing.

9. (Currently Amended) The damper assembly as recited in claim ~~5~~ 1, wherein the blade is rotatably coupled to a ~~leg~~ shaft that is connected to the ~~linkage~~ plate.

10. (Currently Amended) The damper assembly as recited in claim 9, further comprising a second blade rotatably coupled to a second shaft ~~leg~~ that is, in turn, ~~rotatably~~ coupled to the linkage plate.

11. (Currently Amended) The damper assembly as recited in claim ~~5~~ 6, wherein the spring member is in mechanical communication with the blade at a first end, and in mechanical communication with the housing at a second end.

12. (Currently Amended) The damper assembly as recited in claim 11, wherein the spring is connected to the ~~linkage~~ plate at one end, and to one of the side walls at the second end.

13. (Currently Amended) The damper assembly as recited in claim ~~5~~ 1, wherein the damper blade rotates about an axis defined by a shaft that is connected to the ~~linkage~~ plate.

14. (Currently Amended) The damper assembly as recited in claim 1, wherein the latch mechanism is mounted ~~onto~~ to an outer surface of the housing.

15. (Currently Amended) A damper assembly installed in a housing having a pair of side walls connected to a pair of end wells that define a conduit extending therethrough, wherein the damper is movable from an open position to a closed position to control fluid flow through the conduit, the damper assembly comprising:

- (a) at least one damper blade operating in a normally open position;
- (b) a biasing member applying a force to the damper blade biasing the blade towards the closed position;
- (c) a retaining member in removable mechanical communication with the damper blade to maintain the damper blade in the open position against the biasing force until an occurrence of a predetermined condition; and
- (d) a latch mechanism movably connected to the blade that causes mating members to engage ~~latch mechanism including a latch member and a corresponding catch member, one of which in mechanical communication with the blade, the other of which in mechanical communication with the housing, wherein an interference is created between latch member and catch member to resist counter-movement~~ movement of the damper blade towards the open position once the damper blade has closed, wherein one of the mating members is stationary.

16. (Original) The damper assembly as recited in claim 15, wherein the retaining member is a fusible link.

17. (Original) The damper assembly as recited in claim 16, wherein the fusible link fails upon an occurrence of a predetermined condition, and wherein the biasing force closes the damper blade when the fusible link fails.

18. (Original) The damper assembly as recited in claim 15, wherein the retaining member is heat sensitive.

19. (Currently Amended) The damper assembly as recited in claim ~~15~~ 51, wherein the latch mechanism includes a ~~linkage rotatably~~ plate coupled to the damper blade, ~~wherein linkage~~ such that the plate pivots in response to blade rotation to engage ~~rotation engages the linkage~~ latch member with the catch member when the blade is ~~biased towards~~ in the closed position.

20. (Currently Amended) The damper assembly as recited in claim 19 ~~54~~, wherein the ~~latch member comprises a protrusion extending from the linkage~~ locking member carries the latch member.

21. (Currently Amended) The damper assembly as recited in claim 19 ~~20~~, ~~wherein the latch member is rotatably supported by the linkage, and wherein~~ further comprising a spring member that biases the latch member into interference with the catch member.

22. (Currently Amended) The damper assembly as recited in claim 19, wherein the blade is rotatably coupled to a ~~leg~~ shaft that is connected to the ~~linkage~~ plate.

23. (Currently Amended) The damper assembly as recited in claim 22, further comprising a second blade rotatably coupled to a second ~~leg~~ shaft that is, in turn, rotatably coupled to the ~~linkage~~ plate.

24. (Currently Amended) The damper assembly as recited in claim 19, wherein the biasing member comprises a spring operably connected between the ~~linkage~~ plate and the housing.

25. (Currently Amended) The damper assembly as recited in claim 24, wherein the spring is in mechanical communication with the ~~linkage~~ plate at one end, and supported by the housing at a second end.

26. (Currently Amended) The damper assembly as recited in claim 25, wherein the spring is connected to the ~~linkage~~ plate at one end, and to one of the side walls at a second end.

27. (Currently Amended) The damper assembly as recited in claim 19, wherein the damper blade rotates about an axis defined by a shaft that is connected to the ~~linkage~~ plate.

28. (Currently Amended) The damper assembly as recited in claim 15, wherein the latch mechanism is mounted ~~onto~~ to an outer surface of the housing.

29. (Currently Amended) A method for operating a damper assembly of the type having at least one damper blade installed in a housing having a pair of side walls connected to a pair of end wells that define a conduit extending therethrough, wherein the blade is held open by a retaining member:

(A) causing the retaining member to fail;

(B) biasing the blade to a closed position ~~to block~~ that blocks the conduit with respect to fluid flow ~~using a spring member that is operably connected between the blade and the housing;~~ and

(C) ~~after step B, activating~~ actuating a latch mechanism to cause mating members to engage, while maintaining one of the mating members stationary, and prevent counter-movement ~~resist~~ of the blade movement from the closed position towards the open position.

30. (Original) The method as recited in claim 29, wherein the retaining member is a temperature-sensitive fusible link, and wherein step (A) further comprises breaking the fusible link.

31. (Currently Amended) The method as recited in claim ~~29~~ 58, wherein step (C) further comprises rotating a ~~linkage~~ plate along with the damper blade to engage the latch ~~member with the catch member mechanism~~ when the blade is biased towards the closed position.

32. (Currently Amended) The method as recited in claim 31, ~~wherein the linkage includes a latch member that engages a catch member that is supported by the housing~~ further comprising connecting a locking member to the plate, the locking member supporting the latch member.

33. (Currently Amended) The method as recited in claim 32, ~~wherein the latch member comprises a protrusion extending from the linkage~~ further comprising pivoting the locking member relative to the plate to enable the latch member to slip over the catch member.

34. (Currently Amended) The method as recited in claim 31, ~~wherein the linkage further includes a latch member that is rotatably supported by the linkage,~~ further comprising

biasing the ~~latch~~ locking member toward a position causing the latch member to engage the catch member into interference with a catch member that is supported by the housing.

35. (Currently Amended) A method for operating a damper assembly of the type having at least one damper blade installed in a housing having a pair of side walls connected to a pair of end wells that define a conduit extending therethrough, wherein the blade is held in an open position by a retaining member:

(A) causing the retaining member to fail;

(B) biasing the blade to a closed position to block the conduit with respect to fluid flow; and

(C) after step B, pivoting a plate that is connected to the damper blade from a first to a second position along with damper blade movement activating a latch mechanism, including a latch member and a corresponding catch member, one of which in mechanical communication with the blade, the other of which in mechanical communication with the housing, to resist counter movement of the blade from the closed position towards the open position; and

(D) engaging mating members by pivoting a locking member relative to the plate to which the locking member is connected in order to resist blade movement from the closed position towards the open position.

36. (Original) The method as recited in claim 35, wherein the retaining member is a heat-sensitive fusible link, and wherein step (A) further comprises breaking the fusible link.

37. (Currently Amended) The method as recited in claim ~~35~~ 59, ~~wherein the latch mechanism includes a linkage rotatably coupled to the damper blade,~~ wherein step (C) further comprises ~~rotating~~ pivoting the plate relative to the housing linkage.

38. (Currently Amended) The method as recited in claim 37, wherein ~~the latch member comprises a protrusion extending from the linkage~~ step (D) further comprises engaging the latch carried by the locking member to the catch formed in a housing wall.

39. (Currently Amended) The method as recited in claim 37, ~~wherein the latch member is rotatably supported by the linkage,~~ wherein step ~~(C)~~ (D) further comprises biasing

the latch ~~locking member into~~ toward a position whereby the latch member engages interference with the catch member.

40. (Currently Amended) The method as recited in claim 35, wherein the ~~biasing member~~ damper assembly further comprises a spring operably connected between the ~~linkage plate~~ and the ~~housing locking member~~.

41. (Currently Amended) A latch assembly for a damper of the type that is installed in a housing defining an internal conduit and having ~~at least a first blade and a second blade~~ that can move in tandem from an open position whereby fluid is permitted to pass through the conduit housing, to a closed position whereby fluid flow through the housing conduit is restricted, the latch assembly comprising:

~~the housing;~~

a first ~~linkage plate~~ supported by the housing and ~~configured to be coupled with the first blade so as to move along with the blade; and~~

a second plate supported by the housing, coupled with the second blade, and further coupled with the first plate via a linkage supported by the housing at a location outside the conduit, the linkage being connected between the first and second plates outside the housing, wherein the second plate moves along with damper blade rotation to lock the damper blade with respect to blade movement towards the open position once the damper blade has closed.

~~a first member communicating with the linkage, wherein the latch assembly member is configured to translate from a first position when the damper blade is open to a second position when the damper blade is closed; and~~

~~a second member supported by the housing configured to interfere with the first latch assembly member when the first latch assembly member is in the second position.~~

42. (Currently Amended) The latch assembly as recited in claim 41, wherein the second plate carries a locking member that pivots relative to the second plate to lock the damper blade with respect to blade movement towards the open position ~~first member comprises a latch.~~

43. (Currently Amended) The latch assembly as recited in claim 42 ~~65~~, wherein the latch is ~~integral with the linkage~~ carried by the locking member.

44. (Currently Amended) The latch assembly as recited in claim 43, wherein the ~~second member is a catch~~ is carried by the housing.

45. (Currently Amended) The latch assembly as recited in claim ~~[[44,]]~~ wherein the catch is formed in the housing 41, further comprising a spring member biasing the damper blades towards the closed position.

46. (Currently Amended) The latch assembly as recited in claim 42, wherein the spring member is connected between the second plate and the housing ~~latch is movably coupled to the linkage, and wherein a spring member biases the latch member into interference with the catch member~~.

47. (Currently Amended) The latch assembly as recited in claim 41, further comprising a ~~second linkage connected to the first linkage and operable to be coupled to a second damper blade~~ retaining member in removable mechanical communication with the damper blade to maintain the damper blade in the open position until an occurrence of a predetermined condition.

48. (New) The damper assembly as recited in claim 1, wherein the biasing force is provided by a spring member operably connected between the blade and the housing.

49. (New) The damper assembly as recited in claim 7, wherein the catch member is stationary.

50. (New) The damper assembly as recited in claim 1, wherein the plate pivots about an axis and the locking member is connected to the plate at a location spaced from the axis.

51. (New) The damper assembly as recited in claim 15, wherein the mating members comprise a latch member and a catch member.

52. (New) The damper assembly recited in claim 15, wherein one of the latch member and catch member is carried by the latch mechanism, the other being carried by the housing.

53. (New) The damper assembly as recited in claim 52, wherein the catch member is formed in a wall of the housing.

54. (New) The damper assembly as recited in claim 19, wherein the latch mechanism further comprises a locking member that is pivotally connected to the plate and causes the latch member to engage the catch member.

55. (New) The damper assembly as recited in claim 21, wherein the plate pivots about an axis and the locking member is connected to the plate at a location spaced from the axis.

56. (New) The damper assembly as recited in claim 55, wherein the axis is aligned with an axis of blade rotation.

57. (New) The damper assembly as recited in claim 15, further comprising a spring member that biases the latch mechanism toward a position causing the latch member to engage the catch member.

58. (New) The method as recited in claim 29, wherein step (C) further comprises engaging a latch member with a catch member to resist blade movement.

59. (New) The method as recited in claim 35, wherein step (D) further comprises engaging a latch member with a catch member.

60. (New) The method as recited in claim 37, wherein step (C) further comprises pivoting the plate along with the damper blade.

61. (New) The method as recited in claim 38, wherein step (D) further comprises engaging a latch carried by the locking member with a catch carried by the housing.

62. (New) The method as recited in claim 61, wherein step (D) further comprises biasing the latch in engagement with the catch via a spring coupled between the plate and the locking member.

63. (New) The method as recited in claim 35, wherein step (B) further comprises biasing the blade to the closed position via a spring coupled between the housing and the plate.

64. (New) The latch assembly as recited in claim 42, wherein locking member movement causes a latch member to engage a catch member.

65. (New) The latch assembly as recited in claim 64, further comprising a spring member that biases the locking member towards a position that causes the latch to engage the catch.

66. (New) The latch assembly as recited in claim 65, wherein the spring member is connected between the locking member and the second plate.

67. (New) A latch assembly for a damper of the type that is installed in a housing and having a first blade and a second blade that can move in tandem from an open position whereby fluid is permitted to pass through the housing, to a closed position whereby fluid flow through the housing is restricted, the latch assembly comprising:

a first plate supported by the housing and coupled with the first blade; and
a second plate supported by the housing and coupled with the second blade and first plate, wherein movement of the blades to the closed position causes the first and second plates to pivot, and further causes the second plate to engage mating members that resist movement of the damper blade towards the open position once the damper blade has closed, wherein one of the mating members remains stationary while the mating members engage.

68. (New) A damper assembly installed in a housing having a pair of side walls connected to a pair of end wells that define a conduit extending therethrough, wherein the damper is movable from an open position to a closed position to control fluid flow through the conduit, the damper assembly comprising:

(a) at least one damper blade operating in a normally open position;
(b) a biasing member applying a force to the damper blade biasing the blade towards the closed position;

(c) a retaining member in removable mechanical communication with the damper blade to maintain the damper blade in the open position against the biasing force until an occurrence of a predetermined condition; and

(d) a latch mechanism movably connected to the blade that causes a latch member to engage a catch member, one of which formed in a housing wall.

69. (New) The damper assembly as recited in claim 68, wherein the catch member is formed in the housing wall.

70. (New) The damper assembly as recited in claim 69, wherein the latch mechanism further comprises a plate connected to the damper blade that causes the latch member to engage the catch member when the damper blade is closed.

71. (New) The damper assembly as recited in claim 70, further comprising a locking member that carries the latch member and is pivotally connected to the plate.

72. (New) The damper assembly as recited in claim 71, wherein the locking member is biased into an engaged position via a spring connected between the locking member and the plate.

73. (New) A damper assembly installed in a housing having a pair of side walls connected to a pair of end wells that define a conduit extending therethrough, the damper assembly movable from an open position to a closed position to control fluid flow through the conduit, the damper assembly comprising:

(a) at least one damper blade operating in a normally open position;

(b) a biasing member urging the damper blade towards the closed position;

(c) a retaining member in removable mechanical communication with the damper blade to maintain the damper blade in the open position against the biasing force until an occurrence of a predetermined condition that causes the damper blade to close; and

(d) a latch mechanism including a plate connected to the damper blade and further carrying a locking member that attaches to an engagement member separate from the plate to resist movement of the damper blade towards the open position once the damper blade has closed.

74. (New) The damper assembly as recited in claim 73, further comprising a spring member biasing the locking member toward the engagement member.

75. (New) The damper assembly as recited in claim 74, wherein the spring is connected between the plate and the locking member.

76. (New) The damper assembly as recited in claim 75, wherein the engagement member comprises a catch member formed in a housing wall.

77. (New) The damper assembly as recited in claim 76, wherein the locking member carries a latch member that engages a catch member.

78. (New) A damper assembly installed in a housing having a pair of side walls connected to a pair of end wells that define a conduit extending therethrough, the damper assembly movable from an open position to a closed position to control fluid flow through the conduit, the damper assembly comprising:

- (a) at least one damper blade operating in a normally open position;
- (b) a biasing member urging the damper blade towards the closed position;
- (c) a retaining member in removable mechanical communication with the damper blade to maintain the damper blade in the open position against the biasing force until an occurrence of a predetermined condition that causes the damper blade to close;
- (d) a latch mechanism movably connected to the blade that causes mating members to engage and resist movement of the damper blade from the closed position towards the open position; and
- (e) a spring member biasing one of the mating members against the other mating member.

79. (New) The damper assembly as recited in claim 78, wherein the latch mechanism further comprises a plate that rotates along with the damper blade to bring the mating members into engagement.

80. (New) The damper assembly as recited in claim 79, wherein the plate carries a locking member that includes one of the mating members.

81. (New) The damper assembly as recited in claim 80, wherein the spring is connected between the plate and the locking member.

82. (New) The damper assembly as recited in claim 81, wherein the locking member carries a latch member that engages a catch member formed in a housing wall.

83. (New) A latch assembly for a damper of the type that is installed in a housing and having a blade that can move from an open position whereby fluid is permitted to pass through the housing, to a closed position whereby fluid flow through the housing is restricted, the latch assembly comprising:

a plate supported by the housing and movably coupled with the blade from a first position to a second position, the plate carrying a first mating member; and

a second mating member fixedly connected to the housing;

wherein plate movement to the second position interlocks the first and second mating members to resist blade movement from the closed position towards the open position.

84. (New) The latch assembly as recited in claim 83, wherein the first mating member comprises a flange formed in the plate.

85. (New) The latch assembly as recited in claim 84, wherein the second mating member flexes as it engages the flange.

86. (New) The latch assembly as recite in claim 85, wherein the second mating member comprises a plate having a base connected to the housing and a bent section extending from the base, the bent section defining a distal end that engages the flange.